

Haploid Genotyping by Two-Color, Single-Molecule Detection

Mutation	Genotype	Two-Color Probes for Mutant	Two-Color Probes for Wild Type	Two-Color Correlation Result, Mutant/Wild Type
wild type	A B _____ A B	-	A B Correlated Two-Color	-/+
two mutations separated on two chromosomes, heterozygote	A b _____ a B	A b + a B	A b + a B	-/-
two mutations on one chromosome, the second chromosome intact, heterozygote	a b _____ A B	a b Correlated Two-Color	A B Correlated Two-Color	+/+
two mutations on one chromosome, homozygote	a b _____ a b	a b Correlated Two-Color	-	+/-

Fig. 1

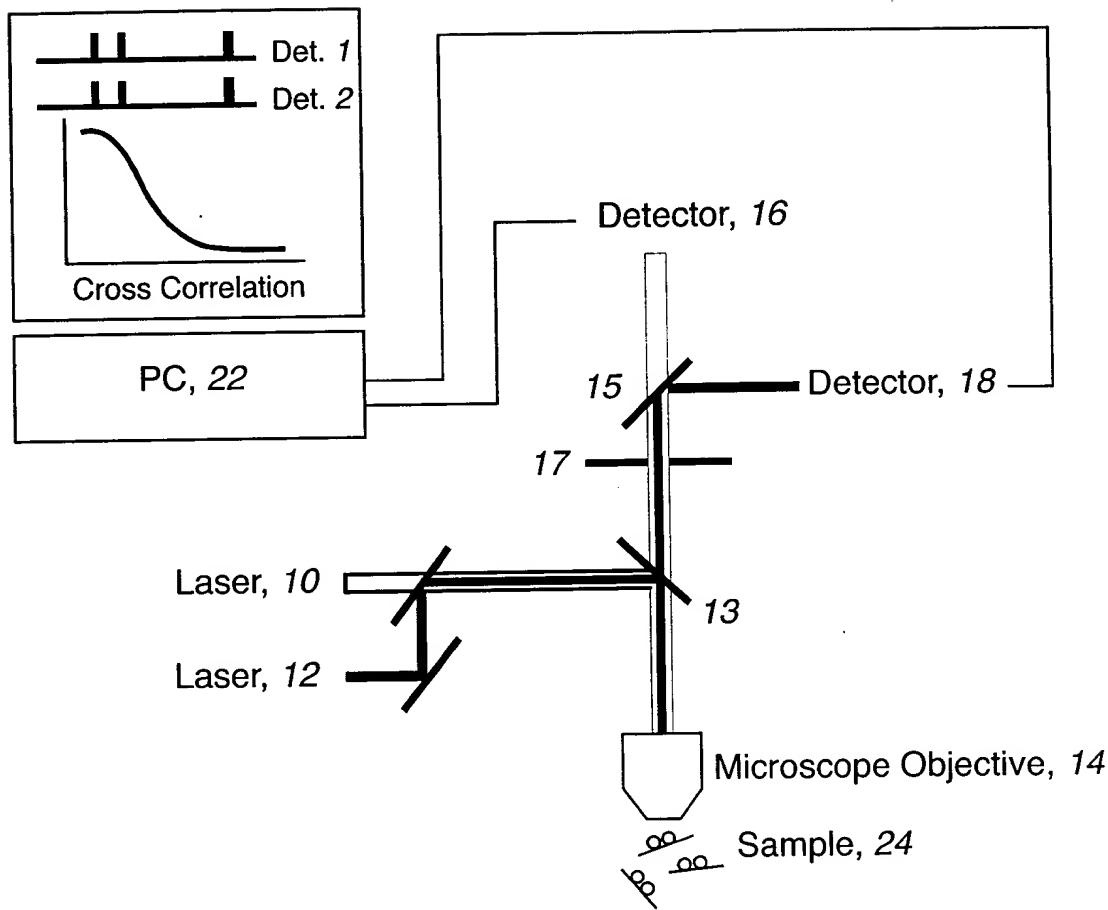


Fig. 2

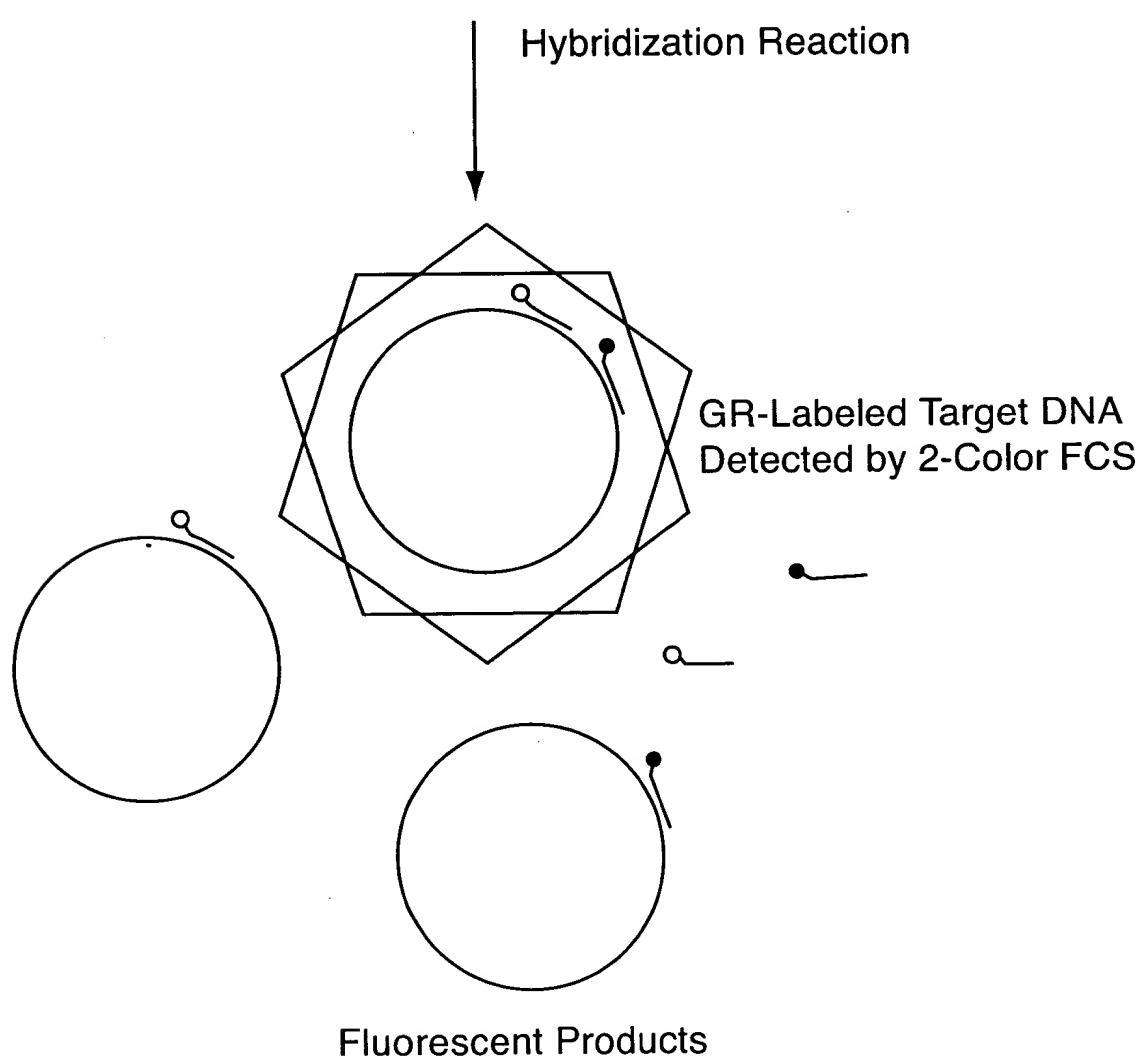
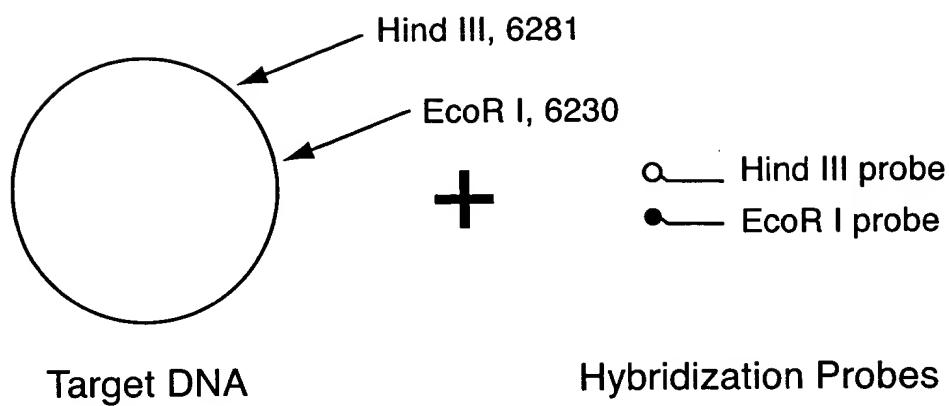


Fig. 3A

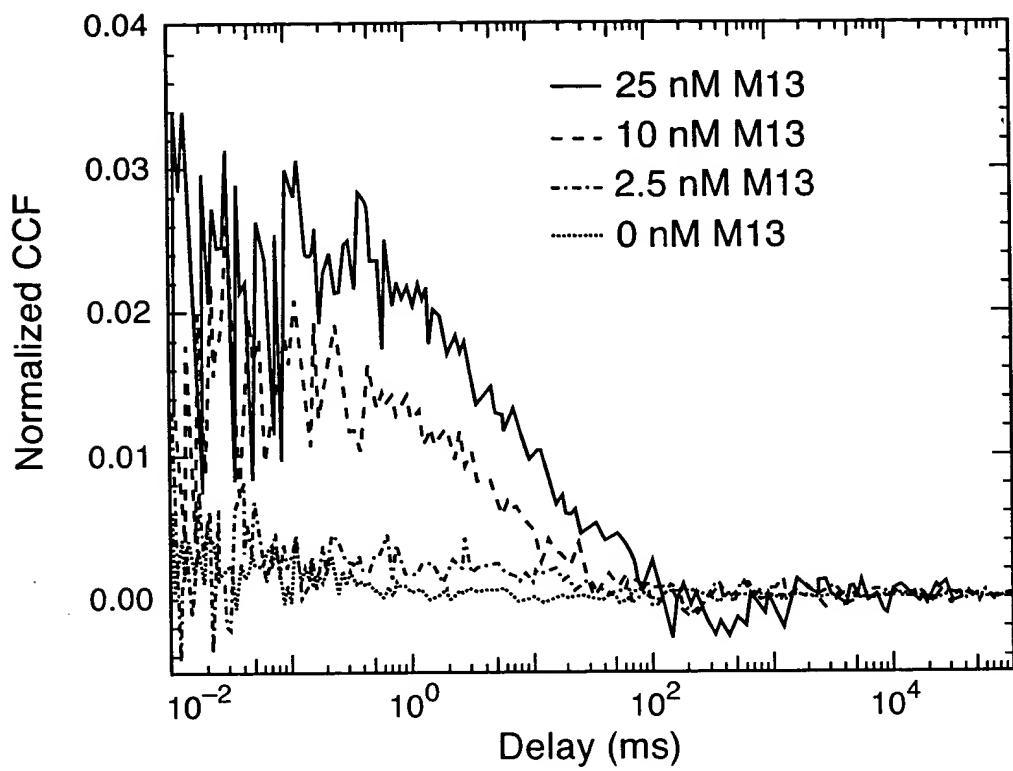


Fig. 3B

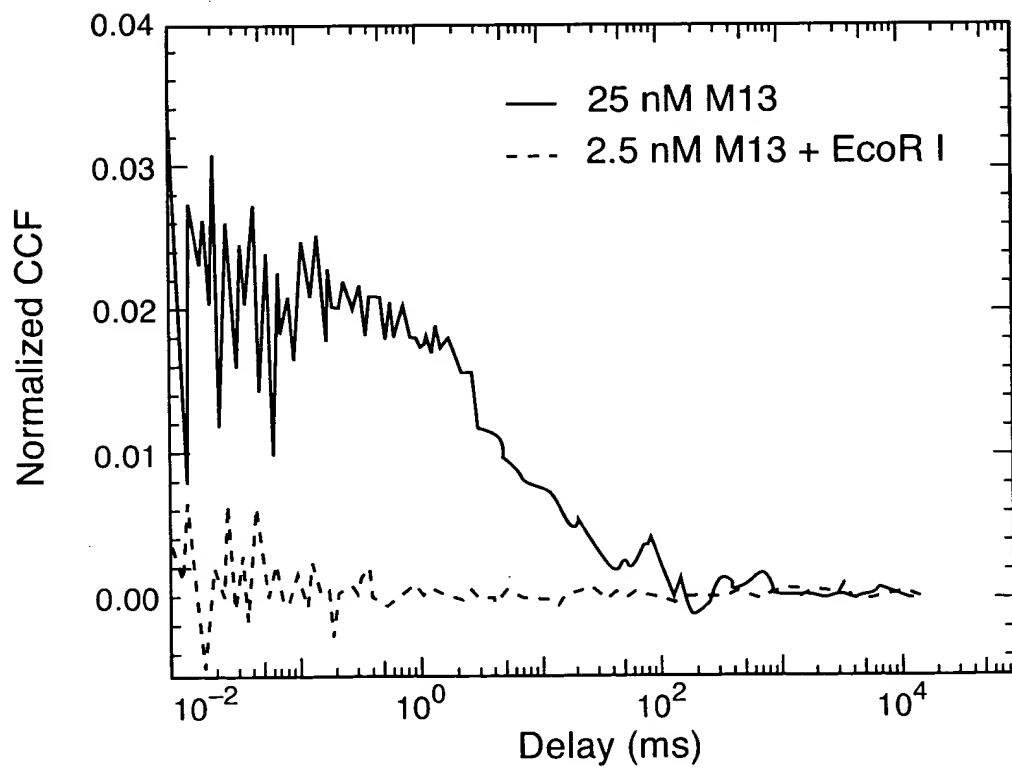


Fig. 3C